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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,220	01/14/2002	J. Randolph Lewis	29488/38131	5743

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EXAMINER	
SHAPIRO, JEFFERY A	
ART UNIT	PAPER NUMBER
3653	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/047,220	LEWIS, J. RANDOLPH	
	Examiner	Art Unit	
	Jeffrey A. Shapiro	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2007* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-23 and 39* is/are pending in the application.

4a) Of the above claim(s) *40-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-23 and 39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/8/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-3, 5-23 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Elmsley et al in view of Boyd.

Elmsley discloses as follows.

As described in **Claims 1, 6, 11, 15 and 21**;

a. a bin (2) having a receiving end adapted to receive articles and a discharge end, defined by discharge flap (9), the bin having a dump mode, in which articles in the bin are discharged from the discharge end onto the collection area (10 and 11), and

b. a pick mode, in which articles are retained in the bin, the bin being biased under force of gravity toward the dump mode;

See Elmsley, col. 2, lines 58-66.

c. a releasable latch (19) positioned to retain the bin in the pick mode against the force of gravity, the latch being responsive to a release signal to release the bin;

e. wherein the bin automatically switches from the pick mode to the dump mode under the force of gravity thereby to discharge articles in the bin onto the collection area; See figure 3.

k. a support shaft, wherein the bin is pivotally mounted on the support shaft, the bin having a center of gravity laterally offset from the support shaft so that the bin is biased to a dump position corresponding to the bin dump mode, the bin being rotatable to a pick position corresponding to the bin pick mode; See Elmsley, col. 2, lines 58-66.

Further regarding "b" above, it would have been obvious for one ordinarily skilled in the art to have biased the bin from either a level position or a tilted position, as the situation warranted, based on Elmsley's teaching of biasing the bin using the weight of the bin itself as a force to move the bin to tilt and therefore dump its contents.

Boyd further discloses the following.

Regarding **Claims 7 and 22**, note that a weight attached to the bin near the discharge end to laterally shift the center of gravity of the bin toward the discharge end is considered to be equivalent to Elmsley's "over-center" designed bins, in which the bins are biased such that their weight causes them to tip. See col. 2, lines 58-66.

Regarding Claim 12, note that Elmsley's bins have bottom walls that are inclined when biased over-center.

Regarding Claim 13, note that Elmsley's bins have a top face formed at the top of the bin, that can be construed as being the upper surfaces to the four side walls.

Regarding Claim 39, note that Elmsley has first and second bins etc.

Regarding **Claims 1 and 15**, Elmsley does not expressly disclose, but Boyd discloses

d. a controller (18) operably coupled to the latch and having a processor programmed to generate the release signal to release the latch,

f. wherein the collection area comprises a conveyor (138) and the processor is programmed to generate the release signal as a selected area of the conveyor passes the dumping station.

As described in **Claims 4, 9, 18 and 20**;

i. the collection areas comprises a conveyor, and the processor is programmed to generate the release signal as a selected area of the conveyor passes the dumping station (see col. 3, lines 65-67 and col. 4, lines 1-19, noting that moving the dumping apparatus along the conveyor

or moving the conveyor along towards a stationary dumping apparatus is considered to be functional equivalents of each other);

As described in **Claims 5 and 23**;

j. a status indicator attached to the bin near the receiving end, the status indicator being movable between an active position, to provide a visual indication that more articles are to be placed in the bin, and an inactive position, to provide a visual indication that no more articles are to be placed in the bin (see figure 8 and operation box (112) as well as col. 9, lines 5-10);

As described in **Claims 8 and 17**;

m. a dump pedestal positioned to engage the bin in the dump position, and a pick pedestal positioned to engage the bin in the pick position, the pick pedestal carrying the releasable latch; See col. 7, lines 25-35, which mentions that discharging of articles from the interior of the bin may be accomplished in many ways. This teaching combined with Elmsley's teaching at col. 2, lines 58-66 would have led one ordinarily skilled to have used dump pedestals as they are functionally equivalent to Elmsley's "over-center action" of the bin.

As described in **Claim 14**;

w. the bin is manually placed in the pick mode.

See Boyd, col. 8, lines 62-64, which describes a manual operation. Note that it has been generally recognized that to automate a previously manual operation with the

use of conventional control involves only routine skill in the art. *In re Venner*, 120 USPQ 193 (CCPA 1958).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have substituted a conveyor for Elmsley's collection tray (10) and bag (11), and to computerize Elmsley's system by incorporating a computer controlled latch to cause Elmsley's bins to automatically convert from a pick mode to a dump mode, as taught by Boyd.

The suggestion/motivation for converting Elmsley's system to a computerized version would have been to increase efficiency and throughput required by increased demand for products. See Boyd, col. 1, lines 26-32.

Regarding **Claims 2 and 16**, concerning the latch comprising an electromagnet, note that Boyd's latch mechanism is considered to be a functional equivalent to Applicant's. Also, Applicant's specification does not indicate the criticality of using this type of latch over other types of latches and that Boyd indicates at col. 7, lines 19-35 that any type of door control mechanism may be used with discharge member (32).

Regarding **Claims 3 and 19**, note that Boyd teaches assigning pick orders to the pick station. See Boyd, col. 2, lines 10-52, col. 7, lines 35-67 and col. 8, lines 1-36.

Regarding **Claim 10**, note that it would have been obvious in light of Elmsley, to have used either a front or rear or both front and rear flaps, as Elmsley discloses at col.

2, lines 58-66 that the bins are biased to tip in either left or right direction with respect to center.

Response to Arguments

4. Applicant's arguments filed 3/8/07 have been fully considered but they are not persuasive.

Applicant asserts that there is no motivation to maintain the bin in the level position, biased against gravity. However, as discussed above, it would have been obvious for one ordinarily skilled in the art to have biased the bin from either a level position or a tilted position, as the situation warranted, based on Elmsley's teaching of biasing the bin using the weight of the bin itself as a force to move the bin to tilt and therefore dump its contents.

Also, Applicant's Claim 1 only calls for "a bin having a dump mode, in which the articles in the bin are discharged from the discharge end onto a collection area, and a pick mode, in which the articles are retained in the bin, the bin having a center of gravity laterally offset from the axis toward the discharge end".

There is no mention of a limitation that the "pick mode" is defined as a level orientation. In Elmsley's device, a "pick mode" can be defined as when the bin is biased to the left, while a dump mode defined as when the bin is biased to the right.

Further regarding motivation to add the electronic controller to control the detent (19) of Elmsley, one ordinarily skilled in the art would have recognized that replacing the scrolls, cams and rails of Elmsley with a computer controlled latch would reduce

maintenance and reduce inaccuracy and malfunction caused by the wear of the mechanical cams and rails.

Regarding Claim 15, the stationary support limitation, note that Elmsley's bins are supported by a rail (1) which is stationary. This rail is an overhead conveyor, that must be mounted to the roof or ceiling. The roof is considered to be a substrate. Therefore, Applicant's Claim 15 is considered to read on Elmsley's bins.

Regarding Claim 39, although Boyd or Elmsley may not specifically state dumping items onto the same area of the conveyor, Elmsley's bins are capable of dumping items on the same area of the conveyor, since a particular moving area of the conveyor moves underneath plural bins. Each bin has the capability of dumping its items onto the same area of the conveyor as that area travels beneath the various bins. Additionally, Boyd teaches that the control system "discharges articles at a predetermined location" and tracks the location of the various bins. It is also obvious to use a conveyor to transport items. It therefore would have been obvious to replace Elmsley's receiving bins with a conveyor and to cause various bins to dump items onto said conveyor. Doing so does not destroy Elmsley, but instead, enhances it by modifying it to better handle items, as described above.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS

April 16, 2007

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